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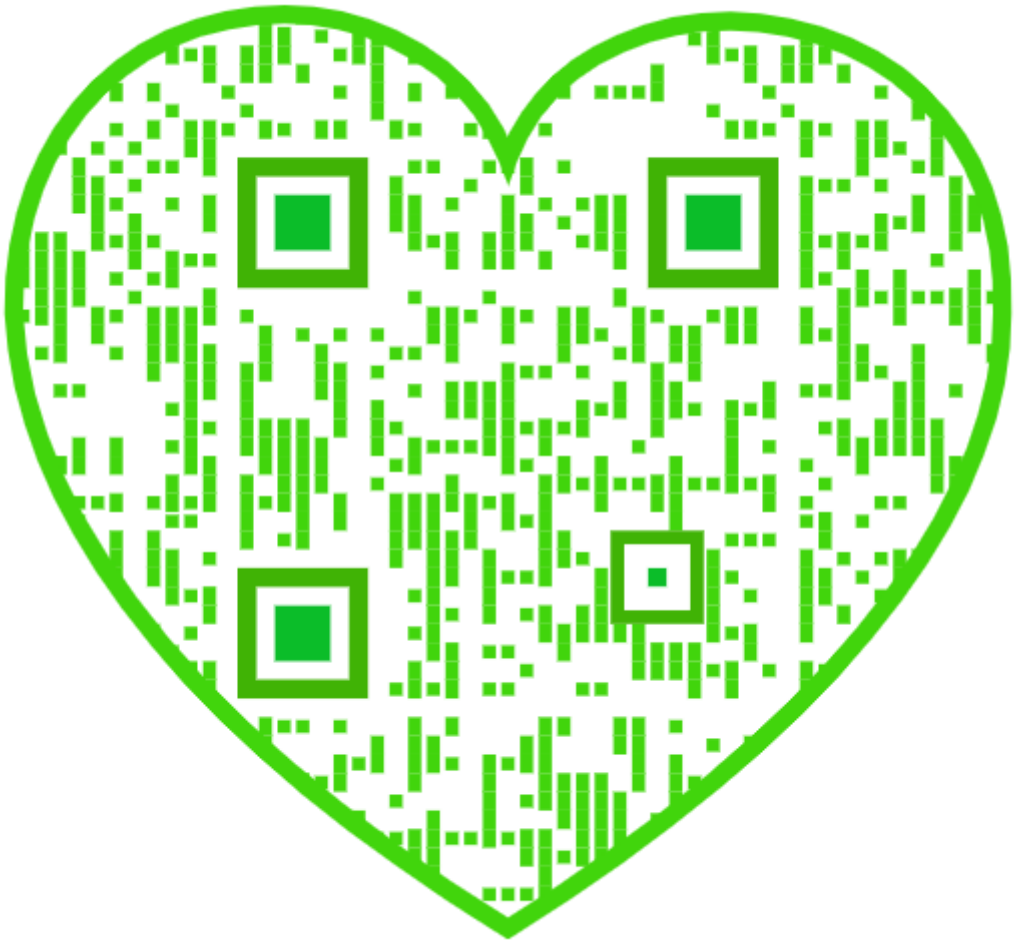

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Interesting Facts Concerning the Place of Fish in the Daily Diet

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HE most interesting and timely of fish facts is this—that even now we Americans do not eat enough of these delicious and nutritious water-born foods.

True enough, our consumption of them has largely increased within the past twenty-five years, and still is growing. Refrigerator cars, which make possible transportation of fresh fish to points far inland, and the building of canneries on banks of rivers and shores of seas, have been the chief factors in the change. Despite these advances, however, America's annual meat bill is to-day twenty-five times as large as her fish bill. Allowing for the difference in cost between the two, this means that each year we eat about eighteen times as much meat as fish.

There are two main reasons for this. One is the no-fish habit unconsciously formed by that large portion of our population living in inland towns, formerly deprived of fresh fish, save such as were lured from nearby little streams by boys and faithful followers of Izaak Walton. The other is a logi-

cal sequence—lack of knowledge on the part of American housewives as to the many and palatable ways in which fish can be prepared.

Fish is a World-Food

Wherever water flows or beats in waves, fish is held in esteem as a food. As far back as history can be traced we find evidence of its popularity, and the never-ending abundance of its supply seems to indicate nature planned it as one of our chief articles of diet.

As commonly used, the term "fish" includes oysters, clams, lobsters, crawfish, crabs, shrimps, turtle and terrapin, in addition to the scaly members of watery tribes to which the name is definitely given. These widespread food creatures are divided into two main groups—fresh-water and salt-water. The latter predominate.

From the sea comes so wide a range as to include the tiny sardine and the monstrous whale—though the latter really is not a "fish," but a mammal. Between these extremes are so many variations in size, form and flavor that to deal with all of them would require a book as big as the dictionary. They fall naturally into three general groups—small fish, large fish, and shell fish.

The Nutritive Value of Fish

In each of these forms fish is universally recognized as an important food material, and while we Americans have not yet given it the place it should

have in our diet, the annual catch of fresh and salt-water fish in this country and Alaska now runs close to 4,000,000,000 pounds. And although some persons still regard fish as more or less an "incidental" among food materials, science says it contains the same kind of nutrients as other food materials. Being essentially a nitrogenous food, it closely resembles meat.

Like meat, fish provides fat and protein—the best of fuels and the best of building materials. From the standpoint of both nutritive value and palatability it is a most important food product. Fish, meat, eggs, milk and some cereals and vegetable food all supply fat in varying amount. Fresh fish usually contain less fat than is found in meat, and dried fish are richer in nutritive material, pound for pound. Canned fish, which really is cooked fish, compares favorably with the fresh material.

The fish richest in fat are salmon, shad, herring, Spanish mackerel and butter fish. Those with a moderate amount are white fish, mackerel, halibut and porgie, while smelt, black bass, blue fish, white perch, weak fish, brook trout, hake, yellow perch, pike, sea bass, cod and haddock provide a minimum.

A pound of any fish rich in fat provides about the same heat, energy and building power as a pound of average lean meat. And while the caloric value of oysters is less than that of nearly any other sea food, it is interesting to know they come nearer to milk than almost any other common food material as regards both the amounts and relative proportions

of nutrients. Roughly speaking, a quart of oysters contains about the same quantity of actual nutritive substances as a quart of milk. This does not mean babies and young children should be fed on them, but it does mean that those of delicate digestion can depend on oysters for nutrition.

The Fish that Comes in Cans

THE growth of the canned fish industry in this country within the last twenty-five years is one of the most remarkable of modern food developments. Fish was among the last of foodstuffs to be regarded as fit for canning, yet when it was found this could be done with eminently satisfactory results, there budded an experiment which now has flowered into one of the vastest of our industries.

This development has given the pink-fleshed salmon a place of pre-eminence in American homes, and thus made it the chief of our connecting links between the sea and the dinner table.

The Romance of the Salmon

IN all the realm of food is no story more tinctured with romance and adventure than that of the salmon. Somewhere in the depths of the sea—no man has yet been able to discover these haunts—countless multitudes of salmon swim and grow fat. Then, after having reached maturity, once a year they leave their ocean home, and guided by some mysterious instinct, return to the rivers in which they were born, there to lay and fructify the eggs which insure continuity of the species.

On both our coasts they carry out this annual program, but in far greater numbers on the North Pacific and Alaskan coasts. To ascend the rivers it is necessary for them to climb as well as swim, for often they are impeded by rocks and waterfalls. They do not permit such obstacles to interfere with their purpose, however, and being very powerful, they leap up the sides of great rocks or make use of ladders which men have placed conveniently to ease their journey.

Coming as they do in great numbers, it is easy to catch them, and as soon as caught they are sorted, cleaned and canned in huge factories where every modern improvement is made use of to facilitate the process and insure sanitary protection to the consumer.

There are several different species of salmon, all excellent for food use, though the so-called Chinook and the Sockeye are generally regarded as superior in flesh and flavor. These different salmon run in weight from five to ninety pounds, and when canned they contain an average of about 53 per cent of protein, 40 per cent of fat, and 6 per cent of ash.

Of them it may be said that they did almost as much to win the war as their larger brothers, the submarine chasers, for canned salmon was one of the chief articles of food sent abroad to sustain our own soldiers and those of the allied forces. Long before the war, however, this delicious foodstuff, which is capable of so many variations in serving, had won its way into public favor, and at the present time

may be said to be the most popular of all fish in America.

More recently the tuna fish, another member of the large-body group, has been steadily growing in favor as a canned fish. Like the salmon, it is a Pacific coast product, though it inhabits the southern waters. Unlike the salmon, its meat is almost white in color.

The tuna has a delicate flavor, tasting almost like breast of chicken—in fact, it has been called "sea chicken"—and is especially adapted to creamed fish dishes and salads.

In buying salmon it is well to remember that the best qualities usually are labeled red salmon, after which comes the pink and the so-called chum salmon. The difference in these three general classifications refers not only to color, but to some extent to flavor and texture, and the Chinook or red salmon is usually regarded as the finest quality. There is, however, no difference in food value and where cost is an item the pink and chum salmon should be chosen, as these varieties are very much cheaper than the red. In fact, the practical housewife should use the cheaper grades for all made dishes, as a demand for these varieties would tend to modify the price of the red, which now sells at a very high figure.

Next to salmon and tuna in canned fish, the sardine occupies a most popular place. The true sardine is not found in American waters, but millions of cans annually are imported to this country from Spain, Portugal, and the Scandinavian countries.

There are certain small fish of about the same size, however, caught in large quantities off the coast of Maine and known as American sardines, and these find ready sale in all parts of the country, first because of their goodness and second because of their relative cheapness. When packed in oil, as is the common method of preparation, sardines become one of the most highly nutritious of all fish, and they too can be served in numerous ways.

On a par with canned fish in their convenience and year-round seasonableness are dried and salt fish, and among these the cod and herring are acknowledged leaders. Vast quantities of cod are caught both on our Atlantic and Pacific coasts and this fish ranks among the most popular that are commonly used—codfish cakes for Sunday breakfast being a fixed custom in some sections.

The Widening Use of Fresh Fish

Quick transportation and the employment of refrigerator cars have made possible within recent years a largely increased use of both fresh and salt-water fish in all save the remotest and most sparsely settled districts. To-day there is no inland city and hardly an inland town of any size in which fresh seafood in good condition cannot be had at least once or twice a week. This applies not only to the finny members of the tribe, but also to shell fish and crustaceans. Although oysters still are canned and shipped in ice to many markets, large quantities of live oysters in the shell are sent every day during the season

to cities and towns which twenty years ago were denied this tempting food in its most alluring form.

The same is true of fresh cod, halibut, flounder, Spanish mackerel, sea bass, smelt, hake, haddock and shad in season. In all of the larger cities these will be found in market, and in addition to them it is possible to buy varieties which abound near at hand. In the Mississippi valley, for instance, great quantities of catfish are annually consumed, and in the Great Lakes regions we find the red snapper and the delicate whitefish, while those who live in the vicinity of the Gulf of Mexico revel in the pompano and other varieties indigenous to that body of warmer water. The cooking of pompano in New Orleans is a work of art.

Indeed with the present-day supply of canned and dried and fresh fish, it is possible for any household to thus vary the menu at least three times a week and still provide non-tiring variety. Yet our annual per capita consumption of fish is little more than twenty pounds, while that of Great Britain is fifteen times as much.

Some Fish Questions Answered

With fish, as with every other form of food, certain ideas, many of them false, have gained general circulation. First of all is the widespread notion that fish and milk do not mix well in the stomach—especially that ice cream or milk should never be taken with crabs, shrimps, oysters, or lobsters. The fact of this matter is that fish and milk do not agree with

some persons, just as milk or some other food may not agree. When such is the case, fish and milk should not be eaten together.

There are many who wonder if fish is easily digestible. All such should read the following from a government bulletin dealing with fish as food:

"The numerous artificial digestion experiments which have been made with fish indicate that it is less quickly digested than beef, being about equal to lamb in this respect. However, as compared with other foods, the difference in the digestibility of fish and meat, as shown by these experiments, is not very great. In some carefully conducted experiments, which were reported only a few years ago by a German investigator, it was noted that oysters, whitefish, and shellfish, taken in moderate amounts, left the stomach in two to three hours, in this respect resembling eggs, milk, white bread, and some other foods. Caviar left the stomach in three hours to four hours, as did also chicken, lean beef, boiled ham, beefsteak, coarse bread, etc. Salt herring left the stomach in four to five hours, other foods, in the same class being smoked tongue, roast beef, roast goose, lentil porridge, and peas porridge. So far as fish is concerned, the general deduction from these experiments was that it is more rapidly digested than meat. With respect to its rapidity of digestion in the stomach, another German investigator includes whitefish in the same class as the following animal foods: Roast chicken, pigeon, roast veal, and cold underdone roast beef."

Is fish a brain food?

No more so than any other food which supplies the necessary elements of nutrition. This impression has gained ground because the brain is known to contain phosphorus and this element is also present

in fish. In the sense that fish nourishes the body it is, of course, a brain food. But not in any other sense.

Then there is the common wonder as to whether coarse fish such as cod, salmon and halibut are as easily digested as smaller fish like perch, bass and brook trout.

In this matter science tells us the texture of the fish has little influence upon its digestion. And science also informs us that the stomach welcomes canned fish in exactly the same measure as fresh fish, and handles it with similar ease.

The sooner our people come to appreciate the worth of fish as a highly nutritious, easily digested food, the better it will be for all of us. Such appreciation will lead to largely increased use, and this will prompt those connected with the industry to increase the supply and at the same time pay more attention to the proper preservation both of product and source.

It will do more than this. It will provide an ideal substitute for a fast-failing supply of meat—and at a cost of production so low as to guarantee at least reasonable prices. For fish take care of their young and feed themselves. We merely catch them after nature has produced them. Neither eggs nor meat can be secured at so low a cost. Hence the importance of eating more fish.

The following recipes illustrate some of the many dainty and novel ways in which canned fish may be served. The recipes are intended to be of service to

those readers of Mr. Goudiss' article on the preceding pages who may feel that they have neglected fish in the past and who would like to have it more frequently on the table in the future.

RECIPES

Fish Timbales

Mix one cupful of soft bread crumbs with one cupful of milk and cook slowly for ten minutes, until the mixture is smooth. Mash one and one-half cupfuls of canned salmon, tuna, haddock or cod and press through a coarse strainer or a meat chopper. Add to the bread-and-milk mixture one-third cupful of milk, two beaten eggs, four tablespoonfuls of melted butter, one teaspoonful of salt and one tablespoonful of chopped parsley or pimento. Line buttered individual molds with rice or spaghetti and fill with the fish mixture. Place the molds in a pan of hot water, cover and bake for thirty minutes in a moderate oven. Turn out on a hot platter and serve with parsley or pimento sauce.

Lobster à la Newburg

Cut in slices one pound of canned lobster and cook for three minutes in one-fourth cupful of melted butter. Add one teaspoonful of salt, a few grains of cayenne and of nutmeg and two tablespoonfuls of corn-starch. Mix carefully and stir in one cupful of rich milk and the beaten yolks of two eggs. Continue stirring until the mixture has thickened, then add one tablespoonful of lemon juice and serve immediately on thin strips of toast.

Fish Loaf

Remove skin and bones from one pound of canned fish. Mix with one cupful of soft bread crumbs, one teaspoonful of salt, one-eighth teaspoonful of pepper, one teaspoonful of celery salt, two eggs and one cupful of milk. One tablespoonful of chopped parsley or pimento gives added flavor. Mix thoroughly and pack into a greased bread tin or baking dish. Bake in a moderate oven about thirty minutes. Turn out and serve with parsley sauce.

Molded Fish Salad

Separate into flakes a half-pound of canned tuna fish or salmon. Mix carefully with one cupful of diced celery, one tablespoonful of chopped green peppers, two tablespoonfuls of chopped olives and three-fourths cup of cooked salad dressing. Add two teaspoonfuls of vinegar and season with salt and pepper. Soak two tablespoonfuls of gelatine in one-fourth cup of cold water for five minutes. Dissolve by placing over hot water, then stir into the fish mixture. Turn into small wet molds and set aside to chill. Serve on lettuce or watercress and garnish with celery tips, slices of stuffed olives and pieces of green pepper, pimento or parsley.

Shrimp and Tomato Curry

Melt four tablespoonfuls of butter, add four tablespoonfuls of flour and one teaspoonful of curry powder. When bubbling, stir in one cup of boiling water and one cup of strained tomato juice. Cook until thick and smooth, season with salt and pepper and add two cupfuls of canned shrimp broken in halves. Reheat and serve with a border or cones of boiled rice.

Crab Meat à la King

Melt two tablespoonfuls of butter, add three tablespoonfuls of flour, then stir in one and one-half cupfuls of rich milk. Cook until thick and smooth, add three-fourths teaspoonful of salt, one beaten egg, one and one-half cupfuls of crab meat separated in flakes, one-fourth cupful of pimento cut in strips, one tablespoonful of lemon juice and one-half cupful of canned mushrooms. Reheat to the boiling point, being careful not to break the fish by hard stirring. Add two tablespoonfuls of butter, a little at a time. Garnish with toast points and parsley or pimento strips or serve in patty shells.

Tuna Fish Shortcake

Substitute tuna fish for crab meat in recipe for Crab Meat a la King, omitting the mushrooms and pimento and adding one tablespoonful of chopped parsley. Bake small biscuits, split and put a generous spoonful of the fish mixture between and on top. Garnish with parsley or paprika and serve very hot.

Salt Cod en Casserole

Wash one pound of boneless salt codfish and soak over night or for several hours in cold water. Drain and rinse. Cover with boiling water and let simmer for ten minutes, then drain and break into pieces. Melt three tablespoonfuls of butter or substitute, add one small onion cut in thin slices and cook slowly for five minutes. Add the fish, one cupful of boiled rice and two cupfuls of canned tomatoes. Pour into a casserole dish, cover and cook slowly for thirty to forty minutes. Before serving, season to taste.

Planked Shad

Clean and split a three-pound shad. Place skin downward on a greased plank that is a little longer and wider than the fish. Sprinkle with salt and pepper and brush with melted butter. Bake in a hot oven for twenty-five minutes. Remove from oven, spread with butter and garnish with parsley and slices of lemon. Mashed potato, mixed with beaten egg, add an attractive border. Halibut, mackerel or haddock may be planked in a similar way.

Macaroni, Fish and Pimento Scallop

Cook enough macaroni to make two cupfuls. Flake two cupfuls of any cooked fish. Make two cupfuls of well-seasoned white sauce and chop two pimentos. Put alternate layers of macaroni, fish, white sauce and pimentos in a well-greased baking dish. Cover the top with one-half cupful of buttered crumbs and bake in a hot oven until the crumbs are brown.

Fish Cutlets

Melt three tablespoonfuls of butter or substitute, add one-half tablespoonful of finely chopped onion and two tablespoonfuls of finely chopped pimento. Cook slowly for five minutes, stirring constantly. Add one-third cupful of flour and when well mixed stir in one-half cupful of milk and one-half cupful of cream or evaporated milk. Cook until thick and smooth, add two cupfuls of cold flaked fish, one-half teaspoonful of salt and one-fourth teaspoonful of paprika. Spread out on a platter to cool. Shape into small cutlets, dip in fine crumbs, then in beaten egg and then in crumbs again. Fry in deep hot fat. Drain on soft paper and serve with a well seasoned sauce.

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